

# On the Finite Element Approximations of Mixed Variational Inequalities of Filtration Theory

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## Abstract

© Published under licence by IOP Publishing Ltd. We construct the finite-element approximations for mixed variational inequalities with pseudomonotone operators and convex non-differentiable functionals in Sobolev spaces. Such variational inequalities arise in the mathematical description of the processes of an established filtration. The convergence of these approximations are investigated.

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